



GOKARAJU RANGARAJU INSTITUTE OF ENGINEERING AND TECHNOLOGY

FLUID MECHANICS LAB

Course Code: GR15A2008
II Year I Semester

L:0 T:0 P:2 C:2

Prerequisites

- Knowledge of Fluid Mechanics

Course Objectives

- To provide the student strong background in the different types of fluids and fluid properties and their behavior.
- To train the students to have the solid foundation in the mathematical and technical concept required to engineering problems such as types of fluid flows, fluids at static condition, dynamic Condition and kinematic condition.
- To prepare the students to excel in post graduate program or to succeed in industry.

Course Outcomes

- An ability to express the principle properties of fluids viscosity, surface tension etc and their type of flows at static condition. Able to calculate the fluid pressure at different condition, friction losses.
- Design diameter, length require of a pipe in net working. An ability to find the role of fluid flows in a weirs, pipes and identifying the laminar and turbulent flows for that require simple and complex applications can handle social and global needs. . (a, b, c, h, j, i)
- Able to calculate discharges through orifice, mouth piece and weirs useful for practical design.

Contents

1. Calibration of Venturimeter.
2. Calibration of Orifice meter.
3. Determination of hydraulic Coefficient of orifice.
4. Determination of mouth piece.
5. Calibration of Rectangular Notch .
6. Calibration of Triangular Notch.
7. Determination of friction factor in pipes.
8. Determination of minor losses in pipes due to sudden enlargement.
9. Determination minor losses in pipes due to sudden contraction.
10. Verification of Bernoulli's equation.
11. Reynolds Experiment.